

WHAT IS CLAIMED IS:

1. A bottle cap comprising:

a cap having a screw formed on its inner surface to be engaged with a screw formed on an outer surface of a
5 nozzle of a bottle;

a reverse moving means connected to the cap and ascending in a direction opposite to a descending direction of the cap as the cap is rotated downwardly;

10 a rod shaped nut having a screw engaged with the reverse moving means and moving up and down in a screw direction without rotation; and

15 a display installed in the lower portion of the nut, displaying an opened state of the cap by hanging a part of the cap in the nozzle as the cap is moved downwardly by being pushed by the nut if the cap is opened.

2. The bottle cap according to claim 1, wherein the reverse moving means is a reverse screw rod fixed to the center of the cap, having a reverse screw positioned
20 opposite to the screw of the cap at a pitch larger than that of the cap.

25 3. The bottle cap according to claim 2, wherein the cap has a hole into which the upper portion of the reverse screw rod is fitted.

30 4. The bottle cap according to claim 1, wherein the display includes a base having a slit with a protrusion formed at both ends, two facing hanging members having one sides fitted into the slit of the base and hung in the protrusion with splitting outwardly if it is removed from the nozzle by elasticity, and an elastic means formed between the hanging members, providing elasticity.

5. The bottle cap according to claim 4, wherein the base includes passages extended to the center of the nut so that contents in the bottle move.

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6. The bottle cap according to claim 5, wherein the passages have a diameter gradually reduced toward the lower portion and are provided with a ball.

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7. The bottle cap according to claim 6, wherein the passages include a protrusion at one side to move the ball to the nut at a certain position.

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8. The bottle cap according to claim 1, further comprising a bearing formed between the display and the nut so as not to rotate the display with rotation of the reverse moving means.

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9. The bottle cap according to claim 8, wherein the bearing includes a passage that moves contents in the bottle.

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10. The bottle cap according to claim 9, wherein the passage is formed to pass through lower and upper portions and is leaned with respect to a rotary shaft of the cap.

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11. The bottle cap according to claim 1, further comprising a guide fixed into the nozzle, guiding up and down movement of the nut so as not to avoid rotation of the nut.

12. The bottle cap according to claim 11, wherein the guide includes a plurality of air vents passing

through lower and upper portions.

13. The bottle cap according to claim 11, further comprising a tension spring formed between the guide and
5 the display to avoid rapid descending movement of the display.